THE FUTURE AND EDUCATION

ALBERTA 1970 2005

PREPARED BY

HAROLD S. BAKER

WITH THE ASSISTANCE OF
MEMBERS OF STAFF
OF THE

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FOREWORD

The Future and Education: Alberta 1970-2005 is the last in a series of reports growing out of this Council's initial venture with studies of the future.

Two concerns have provided the impetus for our entry into the field of futures research:

1. A desire to inform the planning process in all areas of human resources development, and to assist planners in advancing from reactive to participatory modes of plan development;

2. A desire to inform citizens of emerging trends in society and of the choices open to them, so that they may be better able to shape society and to avoid what has been referred to as "future shock."

Our first series of studies of the future has focused upon education—or more precisely, upon the implications for education of anticipated social, demographic, economic and cultural futures. All of the studies in this series have been sponsored jointly by the Human Resources Research Council and the Commission on Educational Planning.

The Commission, involved in a three-year study of educational planning procedures in Alberta, was instructed to recommend " . . . appropriate permanent structures and processes for the administration and co-ordination of the total educational organization and for long-range educational planning." In addition, it was instructed to:

> Enquire into current social and economic trends within the Province to determine the nature of Alberta society during the next two decades.
>
> Examine the needs of individuals within that society, having regard to the changes that may occur.
>
> Study the total educational organization inclusive of elementary and secondary schools, colleges, technical institutes, universities and adult educational programs to decide the necessary adaptations of these institutions to . . . trends and needs.

Three major reports have preceded this one:

1. *An Outline of the Future: Some Facts, Forecasts and Fantasies* (The Council, 1970)
2. *Social Futures: Alberta, 1970-2005* (The Council, 1970)
3. *Economic and Demographic Futures in Education: Alberta, 1970-2005* (The Council, 1971)

Report No. 4, *The Future and Education: Alberta, 1970-2005,* is t|the culmination of this series. It was prepared by Dr. Harold S. Bakeker, Distinguished Research Officer in the Human Resources Research C Council. Some working notes and reactions to the various drafts of the|e manuscript were provided by staff members of Council and by the Commmission on Educational Planning.

I express gratitude to Dr. Baker and those who assisted him fofor these very sober and thought-provoking anticipations of the future - and of the ways in which education might serve, in fact, to shape thene future of our choice.

L. W. Downey, Director
Human Resources Research Council |

CONTENTS

PAGE

FUTURES RESEARCH 1
- Nature and Purposes 3
- HRRC-CEP Studies 5

FORECASTS AND EDUCATIONAL RESPONSES 7
- Population and Urbanization 9
- Economic Growth and Organization 13
- Work, Leisure and Pleasure 22
- Science and Technology 27
- Physical and Mental Health 31
- Human Relations and Citizenship 36
- Values and Value Systems 44

RECURRENT EDUCATIONAL RESPONSES 49

"FUTURE" STUDIES 55

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FUTURES RESEARCH

Forecasting would be an absurd exercise were it not inevitable. We have to make wagers about the future: we have no choice in the matter. (Bertrand de Jouvenel)

NATURE AND PURPOSES

The link between social forecasting and educational planning is a vital one. The former is a rational means of anticipating the future, employing the element of probability; the latter is a wilful selection from among futures. Forecasts serve the planning process by providing continuous information and guidance for planning, criteria for determining priorities for interventions into the present system, indications of which or what kinds of resources are committed or uncommitted, and insights into some of the problems associated with the timing of both the planning activity and the actual implementation of plans.

The relationship between planning and social forecasting can be indicated in another way. Planning involves taking risks, or making bets (usually with unfavourable odds) on the future. The more information the planner has, the more he can know and improve upon the odds, the better his chances for success.

Planners and policy makers have to think ahead into a future substantially distant in time. In education, lead times for *decisions* commonly reach five to ten years. But *planning horizons*, the period of interest to the long-range planner, may extend for thirty years or more. Admittedly, many unexpected things can happen in these long lead periods. Witness, for example, the decline in enrolment growth rates of Alberta universities in 1971-72, and the currently improved teacher supply situation in Alberta schools.

Nevertheless, long-range forecasts are necessary if planning is to be as good as it can be at any point in time. How, then, can some sound approach to forecasting be built into planning?

At the outset, it is essential to understand what forecasting is and what it is not. Essentially, a forecast is a statement about the probable occurrence of an event or about the probable consequences of an event or series of events. It follows that forecasts are *conditional* on certain assumptions, that they are *probabilistic* by nature, and that their accuracy depends upon the data on which they are based.

It follows further that they cannot be intended for implicit belief. They cannot be regarded as blueprints for the future, even if they are presented at the 95 percent level of confidence. Too many surprises, too many unexpected events can intervene. But they can be used to urge planners to think about what they are doing and the possible consequences of their actions, and so to give men some small added measure of control over events.

Recently a number of approaches to forecasting have been developed which promise to be useful tools for the planner. Most of them—Delphi forecasting, scenario building, trend extrapolation, etc.—involve attempts

to discover objective, quasi-scientific ways of exploring the future and to link it with planning and policy making.

The Delphi technique is perhaps the best known and most widely discussed of the new methods of forecasting. Essentially a refinement of "brainstorming," Delphi procedures are designed to sharpen forecasts by reiteratively seeking consensus within a group of experts. They have been applied to such varied matters as the time of scientific and technological breakthroughs, problems of defense, the exploration of outer space and, increasingly, social futures. The greatest contribution of Delphi studies is likely to be in the latter area, where intuitive thinking is a principal commodity and where consensus is important, as in the formulation of social goals.

Initial work in this area received its impetus from the realization that significant social changes have come about as a result of technological developments, and that, to the extent that the direction and pace of technological innovation can be anticipated and controlled, it will be possible to forecast and control social progress. But this was only a beginning. Contemporary social forecasting is concerned with much more than the connection between technology and society. It is used to provide information about the kinds of future development that are likely, that are possible, that are desirable—and the amount of effort that will be required to accomplish them. In this sense, it is a way of describing the range of possible or alternative futures before a society, and of influencing the direction and pace of development: that is, of adapting to some futures, preventing the occurrence of others, and inventing even more.

HRRC-CEP STUDIES

A major thrust of the Commission's program of research, which was conceived and conducted by HRRC (part of it as a special project, part under the auspices of HRRC's Education Planning Mission), was concerned with studying the future. This research program did not aspire toward a finely painted, detailed canvas of the future; rather it aimed at preparing a number of working sketches or outline drawings of the future of Alberta and its people.

The HRRC-CEP program of research was designed to yield images of the future which include both exploratory and normative forecasts, and which are based on both systematic and intuitive methods of forecasting.

1. *An Outline of the Future: Some Facts, Forecasts and Fantasies* (Edmonton: HRRC, 1970)

   A summary, collation, synthesis and analysis of "hard" and "soft" forecasts relevant to Alberta

2. *Social Futures: Alberta, 1970-2005* (Edmonton: HRRC, 1970)

   A series of modified Delphi forecasts on the following topics:

   Divisions in Canadian society
   Value change and ideology
   The family
   Religion
   Education
   Leisure and recreation
   Politics
   Native peoples
   Relations with others
   Law and disorder
   Mental illness and other social problems

3. *Economic and Demographic Futures in Education: Alberta 1970-2005* (Edmonton: HRRC, 1971)

   An assembly of the best available demographic, economic and technological-industrial forecasts of Alberta's future having regard to their educational implications, particularly the financing, growth and planning of educational services. Variables examined include population, enrolments, manpower requirements, Canada's GNP, Alberta's GNP, primary and secondary industries and the province's budget. By and large, these forecasts were linear extrapolations of existing trends, and a "no change" future was assumed.

In addition, Reports 2 and 3 have each been the subject of a one-day seminar in which an invited group, composed mostly of educators, ex-

plored in a preliminary way some of their educational implications. These have been presented in two brief reports, 2A and 3A.

The intent of this, the fourth and concluding report of the present series, is straightforward: to identify and categorize some major forecasts, to analyze their social implications, and to propose some educational responses.

The study does not claim to be inclusive. Forecasts from Reports 1, 2 and 3 (mainly 2, *Social Futures)* have been selected and in most instances quoted under one of seven categorical heads, as indicated in the table of contents. Many of the forecasts refer to more than one head. Indeed some of them are broadly interweaving: mental health, for example, is much influenced by population density and urbanization, economic arrangements and outcomes, opportunities for and quality of leisure activities, interpersonal and intergroup relations, value conflicts and resolutions. Value questions, obviously, are themselves implicit in virtually all categories of human activity. The reader is asked to keep such interrelationships in mind even when they are not specifically referenced in the text.

In discussing the social implications of the forecasts, attention has been directed wherever possible to alternatives, particularly with reference to varying degrees of adaptation or of prevention. This inevitably involves the arbitration of values—a hazardous, even an arrogant venture. It is, however, impossible to speculate on futures without being in some degree normative. Value judgements emerging in these discussions, either explicitly or implicitly, may or may not command the approval of the reader—although some of them, at least, would seem to follow from democratic traditions and orientations. They will, at any rate, help to focus attention on the issues which face us, and on our alternatives in attempting to resolve them.

The educational responses proposed at the conclusion of each section of Part 2 are deemed to follow from the substantive concerns of the section itself. Like the forecast items, they are highly selective: undoubtedly there are other (additional, or perhaps different) responses appropriate to the forecast material.

A summary of recurrent educational emphases is provided in Part 3. It is by no means intended that these should provide action blueprints: they are speculative, and they are incomplete. They may, however, provide us with some useful clues as to the leading edge of changes needed for education in the future.

FORECASTS AND EDUCATIONAL RESPONSES

POPULATION AND URBANIZATION

Forecast

> **An increase of about 23 per cent in the total population of Alberta is projected for the decade between 1970 and 1980. The level is expected to reach about 1,950,000 by 1980, 2 million by 1981, and 3 million by 2005. Throughout the forecast period, the rate of population growth is about 1.9 per cent per year.** *(Economic and Demographic Futures in Education,* **p. 1)**

> **An interesting characteristic of the growing population is expected to be the decline in the under-25 age group as a percentage of total population. From 1956 to 1970 this age group increased from 47.6 per cent to 50.6 per cent of provincial population. After 1970, however, this percentage distribution is expected to decline, to 47.1 per cent by 1980 and to 42.8 per cent by 2005.** *(Economic and Demographic Futures in Education,* **p. 1)**

These are straight-line projections, which recognize declining birth rates beginning about 1961, and which assume a continued high level of net migration into the Province. The event could be altered in a number of ways, mostly beyond provincial control. Varying economic futures could alter it. Or we as a federal society could alter it through varying immigration policies. We could, if we wished—through various kinds of control or lack of them—directly influence birth rates.

"Our people," we have said, "are our resources." We first made this assertion in our pioneer days, with our meagre population scattered through a vast and empty land. It was a value based, in part, on scarcity. We shall no doubt make the same statement in 1980, and in 2005, and at the end of subsequent decades and centuries. And it will be as true then as it was in 1905—though the value will not be based on scarcity. Neither, fortunately, will it have reference to overpopulation of the kind suffered in other parts of the world. Until it does, we probably will not, as a matter of policy, attempt directly to influence birth rates. Indirectly, of course, we do in fact influence them. It is reasonable to assume that family allowances have tended to increase them, though there is no way of telling in what degree. The Pill has undoubtedly decreased them; so also, more and more, will abortions. But our controversies here are moral, not demographic. The same is true of eugenics, and will presumably be true of advanced genetic controls as these become available. In short, we continue to regard procreation generally as one of the rights, or as one of the prerogatives, or as one of the freedoms of consenting individuals.

> **The continued migration of Alberta's population to urban places in recent years produced a 71 per cent urban population by 1970.**

> **This trend will produce an 80 per cent urban population by 1980, and more than 90 per cent of Alberta's 3 million people are expected to live in urban places by 2005.** *(Economic and Demographic Futures in Edmonton*, **p. 1)**

> **People will crowd together. Population density in the future will climb far beyond anything now acceptable. Such high densities will be of a different character from any of those which we have known previously.** *(An Outline of the Future*, **p. 222)**

Theoretically, we can live where we *want* to. Practically, most of us live where we *must*. This is now and will increasingly be in cities—indeed, insofar as Albertans are concerned, in *the* big cities of Edmonton and Calgary. Additionally, some of us will live in urban "growth cones" springing up in as many as six areas of the province.

The dangers and disadvantages of modern urban living have been well publicized: loneliness, alienation, anomie, poverty, ghetto housing, crime. Not so much has been said of its satisfactions and advantages, notably its rich and varied human associations, its broad cultural opportunities. Here we are somewhat at war with our pioneer traditions, which have characteristically posited friendship, rustic beauty, and freedom as symbols of rural life; conversely, as symbols of the city, artificiality, ugliness, and various kinds of deprivation. Yet—and without wishing to tip the balance one way or another—we need no Sinclair Lewis to show that some of these features, at least, have been the other way around.

Here again, in a free society, people ought to make the choices they want. This should not prevent alert governments or regional jurisdictions, concerned with the problems of congested areas, from attempting to "spread" our population somewhat more evenly across the face of the land, or from making rural or semi-rural living as attractive as they can. But if, in the end, people choose to live in cities despite the real or supposed blandishments of the country, there is surely only one rational program of action, and that is to assess the problems and then to resolve them.

The problems themselves (though not limited to cities) are certainly formidable: food, housing, employment, leisure, health and social services, law and order, education itself. In megalopolitan situations (i.e., for most of the population) there will be, in addition to the foregoing, special problems of life and value confrontations and adjustments—as for example between the advantaged and the disadvantaged, Native and other peoples, and even those of rural and urban origins and orientation.

Response

Education has been listed (above) as one of the "problems" of population growth and urbanization. But it might just as reasonably have been listed as a resource, or as a remedy—for it is itself one of the prime means whereby these problems can be met and negotiated.

From an educational point of view urbanization itself can be seen, on balance, as providing opportunities rather than as creating problems. An historic problem in Alberta has certainly been its educational isolation. One kind of isolation has been geographic. "It is difficult," we have said in effect, "under rural conditions to provide the same range and quality of education as in the city. Our students, like our resources, are too dispersed. We simply cannot deliver the same kind of service." Now urbanization has provided this kind of opportunity.

Another kind of isolation has been societal. We have, with varying degrees of inevitability, separated "country folk" from "city folk," Native peoples from "the rest of us," the disadvantaged from the advantaged, even the rich from the poor. Urbanization now compels us to make the most of our common humanity, and enables us to make those accommodations and adjustments which humanity demands.

Still another kind of isolation has been academic or institutional. We have compartmentalized education and living—separated books from experience, the school from the community, students or "pupils" from adults. Urbanization now challenges us to bring these all together, and permits us to do this on a scale and over a time span never before possible.

It is time, then, to stop lamenting the problems of "bigness," and to start thinking, instead, of opportunities. The problems are real—bureaucracy, heterogeneity, finance. But bureaucracy is not peculiar to city administrations. Heterogeneity can be a resource as well as a difficulty. As to cost—there are surely economies to be achieved under centralized administration. These, like other organizational and support problems, can be handled by means of adaptation, intelligence, and goodwill.

The opportunities, on the other hand, are overwhelming. The key word is *delivery*, and it has reference to the range, quality, and timing of our teaching and learning resources. A list of these resources as they now exist in urban environments is a genuinely impressive one. They have to do with people (authorities, experts, artists, or simply interested and informed laymen) and they have to do with things (institutions, organizations, artifacts). They are government offices and bureaus. They are business and industrial establishments. They are computer networks and terminals. They are parks and museums and planetariums and exhibitions. They are symphonies and concerts and plays and theatres and bookstores. They are public meetings and forums. They are private meetings, clubs and interest groups. They are sports and recreation groups. And they are, of course, educational institutions themselves, each with its particular wealth of human and physical resources: universities, colleges, institutes and schools—devoted now to an amazing array of day and night and extension programs catering to virtually all age and interest levels. They are also television programs—even more broadly available than in rural areas.

It is not, of course, enough simply to recognize these opportunities. They must be exploited, their promise and their benefits made actual.

This means the opening up of communication between specifically educational institutions and other institutions and agencies, between "school" and "non-school" personnel, on a scale hitherto unknown. It means inter-organizational understandings, accommodations, and arrangements. It means the development or the improvement of access—not just in the transportation sense, but in the sense of receptivity. Fortunately, the welcome mat is clearly visible in a great many desirable places. Where not, receptivity and cooperation can and must be cultivated.

To press for extensive cooperative developments in urban areas ought by no means to suggest any lack of concern for maximum educational improvements in more sparsely settled areas. While their resources are not as rich and diversified, they are in many cases substantial, and amenable to the same kind of exploitation and improvement as suggested for the cities. The development of audio-visual resources is especially important here.

Areas inhabited mostly by Native peoples involve special needs which must be met if educational justice, let alone fundamental human fairness, is to be served.

The percentage of the 0-25 age group, it is forecast, will decline rather steadily from now until 2005. This suggests a reallocation of our educational resources, and presages that variety of changes urged by proponents of lifelong education. Certainly, if we are to be concerned with optimum strategies for the benefit or our urban populations, we must allocate greater resources to early childhood education, as well as to what has been called "adult" education. And we must make all this very much more available and flexible than heretofore.

ECONOMIC GROWTH AND ORGANIZATION

The relationship between population and economic growth is an obvious one. Not so obvious, perhaps, are the relationships between the economic system and the environing social systems.

It is no longer possible for government to limit its involvement in economics mainly to that of a watching brief. It must be active in the creation and implementation of policies covering a variety of crucial matters: the preparation and participation of manpower, international relations, national and provincial cooperation among important groups participating in the development of the economy, redistributive tasks and the promotion of schemes for the involvement of disadvantaged groups and depressed areas.

Forecast

> **Projecting real economic growth in Alberta at 5 per cent during the next 35 years assumes a continuation of the growth forces that have generated the economic development and rising living standards characteristic of the last 20 years.** (*Economic and Demographic Futures in Education*, **p. 6**)

The economy of Alberta has experienced a very rapid rate of growth over the last fifteen years. This has been accompanied by substantial changes in the structure of production and the pattern of output. Agriculture, though still an important contributor to the gross provincial product, has declined in importance, and has given way to the resource-base industries (oil, natural gas and coal), to the manufacturing sector, and to a service sector which has developed very quickly to meet the needs of an advanced economic system. With its large mineral reserves and a buoyant market for its exports, the province is expected to continue as an area of high growth potential over the next three decades. The maintenance of this position in the long-run rate of growth demands resilience and flexibility in the various components of the economic system, especially labour management and technology.

> **The principal difficulties [in projecting manpower requirements] will relate to changes in technology that can't possibly be predicted in relation to their effect on specific occupational groups and their future size requirements.** (*Economic and Demographic Futures in Education*, **p. 80**)

> **The case for closer coupling of manpower and educational requirements faces political and moral objections; an effective enforcement of such coupling would lead to stricter command-type econo-**

mic planning and thus to much greater infringement of the individual's freedom of choice than most of us are willing to contemplate . . . We desire to provide as much security for the individual as possible while, at the same time, refraining from encroaching upon his area of individual freedom and responsibility . . . Should it be the government that 'saves' the individual from his own inclinations and fulfillment? (from "Post-Secondary Education in Ontario," quoted in *Economic and Demographic Futures in Education*, p. 81)

These are the difficulties peculiar to manpower planning in a time of rapid technological change and within a social system which stresses maximum individual freedom and autonomy. As to the first, we must simply make the best predictions we can. As to the second, we do have something of a choice. It is not a clear alternative to "command type" economic planning or to unbounded occupational freedom. But we can, if we wish, enlarge or hedge the opportunities for various kinds of vocational preparation (through financial assistance and subsidies, for example, and through the provision of special opportunities and facilities—or their denial) in ways calculated to increase manpower supply where it will most probably be needed.

Policies of this kind represent a "nudge," rather than a "command," in given manpower directions. Their justification is that there is simply no favour to the individual in encouraging him to prepare himself for a vocation that he will have little chance of practising. Their danger is that they represent at least an indirect encroachment on the freedom of the indvidual, and that they may indeed push some individuals in vocational directions for which they have little aptitude and in which they will gain no basic satisfaction. Such policies must certainly stop short of any disposition to make schools the "servants" of the economic world, and of any assumption that the main function of educational institutions is to "prepare" students for business and industry.

Although the size of the labour force relative to the population will decrease, the proportion of women in occupations not requiring physical strength will increase. (*Social Futures*, p. 73)

In recent years, women have been breaching the social barriers that previously limited their economic participation. This process will continue, and supplementary child care facilities will make it increasingly possible and attractive for women to engage in lifelong non-domestic careers. The expansion of the services sector consequent on the rapid economic development of the province has opened many more employment opportunities that can be exploited by women.

Canadian women have had the lowest participation rate among the developed Western countries. It is estimated that in 1962, while West Germany had a rate of 33.1 percent for women, Canada had a rate of 19.5 percent—some three percent behind the next lowest rate (Italy, with 22.5 percent). The rate of Canadian women may have reached 25 percent in 1970, and may attain the 30 percent level by 1980. If the trend continues, they will equal if not surpass their Western counterparts by the turn of the century.

It is in many ways possible for society, if it wishes, to slow or even to reverse the trend toward increased involvement of women in the labour force. They have been invoked before: substandard salaries, denial of preparation and work opportunity, even the argument that "woman's place is in the home." Given the many kinds of momentum that have developed in the direction of women's liberation, however, and emerging arrangements for child care, the above devices are not likely to be effective. Nor can they, in the main, be regarded as ethical. We must surely have outgrown the ancient stereotype of the "inferiority" of women. Given the disposition, the opportunity and the competence to engage effectively in the world of work, women must be accorded the same rights of self-determination and of self-fulfillment as men.

It is, of course, possible to argue that during periods of underemployment the presence of large numbers of women in the labour force reduces opportunities for the employment of men. But this begs the question as to why, in the final analysis, the kinds of stimulation provided by participation in the world of work ought to be limited to men only—or for that matter, why the kinds of satisfaction and responsibility associated with homemaking and child rearing ought to be reserved for women only. Emerging patterns in this and other parts of the world, together with the demonstrated career contributions of women, recommend that careers be open to both sexes.

> **Nationalism may be upgraded somewhat during the next decades, during the 1990's and thereafter this value will slowly and gradually be downgraded.** (*Social Futures*, **p. 33**)

One of the major problems that the citizens and governments of the Province will have to face is rendering economic nationalism compatible with rapid economic growth. The inflow of foreign equity capital has been crucial in the development of the resource-base industries. This has meant that gross investment in the province has not been constrained by the low volume of gross provincial savings relative to the investment outlays in these industries. Gross investment has exceeded gross savings, the excess being made up by the inflow of capital, particularly from the United States. Economic growth would have been much slower, and per capita income much lower, if investment had depended entirely on the provincial or even the Canadian savings rate.

With foreign capital come inevitably some diminution in local control of the pattern of economic development, and the tendency for decisions important to the provincial economy to be made in remote financial centers of the World. Government, of course, seeks to control foreign domination of the economy. But if it is to succeed, and if the present rate of growth is to be maintained, the private rate of savings will have to increase substantially; alternatively, it may have to take a much more active role in the economy through parastatal organizations like a provincial development corporation. In either case the question is whether Albertans are prepared to reduce consumption and increase private and/or public savings in the interest of economic nationalism. It is not a painless choice.

> **The strength of the opposition of the capitalist system in Canada will likely increase steadily over the next three decades; however, a consistent and united radical opposition to the capitalist system will probably never develop.** (*Social Futures*, p. 35)

Our present anxiety over foreign influence on Canadian economic life is one of the factors that legitimizes, or seems to legitimize, more direct involvement on the part of both federal and provincial governments in key sectors of the economy. The threat of foreign domination, together with a general openness of the economy to external factors, provides a rationale for direct government intervention.

Given the smallness of the Canadian market and population relative to those of the United States, and given the failure of the private market to secure the sort of control Canadians would like to exercise over their economic lives, higher levels of government will be forced willy-nilly to intervene more and more in the market place. This in itself lends a "socialistic" bias to the politics of the country. (The formation of the Canadian Development Corporation attests to the socio-political orientation of the country).

Another factor which tends to enlarge the role of government in the economic sector, and thus to increase its socialistic bias, is an expansive definition of the public interest. Wage and price controls may be imposed under this head, since inflation is considered injurious to the public interest. So also may environmental controls: clear air, clean water, and the preservation of wild life and wilderness areas for posterity are considered "public" goods, in the sense that they are not subject to the exclusion principle which applies to goods and services that are bought and sold in the market place for the private use and enjoyment of individuals.

Whether or not such controls are regarded as "socialistic," it is difficult to see how governments can avoid involvement. They are not, however, anti-capitalist in intent, nor do they portend the end of free

enterprise. Indeed the development of enlightened controls may itself provide the setting for a form of capitalism that is at one and the same time nationalist, conscionable, and forward-looking.

> **The intensity and pervasiveness of industrial strife will probably increase in the future. Whether the increase will be appreciable or slight will depend on the effectiveness of means found to cope with technological change in industry and its consequences for the labouring class, and on procedures by which labour and management relate to each other in attempting to arrive at equitable and fair conditions.** *(Social Futures,* **p. 29)**

Industrial strife, together with all its causes and manifestations, involves social costs external to the parties directly involved. It may adversely affect factors as varied as income distribution, balance of payments, rate of savings and investment, and even the rate of economic growth itself.

A critical question for the future may well have to do with identification of some kind of tolerability limit—a point at which the general social and economic benefits of unionization and corporate management are nullified or reversed by the disruptive effects of confrontations between these groups upon our social and economic lives. If some such point cannot be identified, or if it is frequently surpassed, government may find it necessary to resort to drastic alternatives: wage and price controls, the outlawing of strikes and the declaration that virtually all forms of labour constitute "essential public services."

A much more hopeful kind of involvement is that of helping labour and management to develop norms of cooperation and partnership that will safeguard the interests of both parties. In addition to assistance in arbitration, government can be influential in encouraging, or even in itself establishing labour colleges for the benefit of workers and management. The success or failure of these more permissive ventures provides, of course, a warning index of the likelihood of the harder alternatives indicated above.

> **Values ascribed to economic security and to personal material welfare will probably diverge considerably during the next thirty years. Values pertaining to economic security will likely be somewhat downgraded, especially after 1980 . . .** *(Social Futures,* **p. 39)**

Here one must reckon with the popular appeal of guaranteed minimum annual income, with the institutionalization of retirement funding, and with the social provision of housing, education and health services. They have reduced and will continue to reduce the importance of wealth as a contingency against unemployment, ill-health and poverty. In fact,

the growing economic literacy of the population has already led to the rejection of the idea that poverty is the just recompense of laziness, and governments accept the importance of providing different types of relief to the unemployed and the poor.

This value change, of course, may have crucial implications for the incentive structure that regulates the demand and supply of labour in the market place. The ready availability of economic support does reduce the urgency to the unemployed of finding employment. Labour force studies in the United States and in Canada point to the growing importance of a "discouragement effect": if jobs are not easily found, workers become discouraged and withdraw from the labour force. Unemployment insurance and other related schemes reduce considerably the private costs of unemployment. The unemployed are assured at least a minimum level of material welfare.

It is still too early to say what will be the overall impact of economic security on participation rates of workers. It is possible that the size and structure of the labour force will change. There is evidence that the option of early retirement is being used by men and women over 55; yet they continue to participate in the labour force on a part-time basis. These changes may themselves be good rather than bad. From a purely economic point of view, however, they will warrant careful study during the next decade.

> **The proportion of people trapped in poverty will likely increase somewhat during the next three or four decades, while at the same time the degree and extent of economic dependence upon the state by lower income groups will likely increase appreciably.** (*Social Futures*, **p. 21**)

As a society becomes richer its tastes and consumption patterns expand. The process is accompanied by a changing social definition of poverty. Poverty and deprivation are relative to the levels of income and consumption enjoyed by the general masses of people in the society. Thus as per capita income rises, so do the upper limits of poverty.

Effective schemes of income redistribution will tend to reduce the proportion of hard-core cases of poverty. Where these persist intergenerationally, as in the case of racial or cultural minorities, government appropriately introduces special programs to bring such groups into the mainstream of the social and economic life of the country or province.

It is generally well understood that the economic factors influencing an individual's income and his employment are determined to a major extent by the current economic policies of the governments. It is the role of the latter to maintain full employment with price stability. The dilemma these incompatible goals can cause is well demonstrated in the different experiences of Canada and Western Europe in recent months: the former

has had low rates of inflation and high unemployment, while the latter had the reverse in the trade-off.

The incidence of unemployment is higher among unskilled and lower income groups generally. When governments are prepared to tolerate higher rates of unemployment in the interest of stability, they have a moral obligation to step in with measures that blunt some of the effects of unemployment. This explains the long-term trend for such groups to become more dependent on government, not only in its regulation of the forces affecting the demand for labour, but also in the provision of relief when its policies create less than full employment.

Anti-poverty programs produce sizable externalities: their benefits reach a larger social universe than the target group. Crime rates, delinquency, malnutrition and illiteracy can be reduced through such programs—and thus in turn their social "avoidance" costs (for example, police and public health services). This explains the necessity, for evaluative purposes, of examining both direct and *indirect* benefits of anti-poverty programs.

Federal and provincial governments must concern themselves not only with the distribution of income between high and low income groups but also with the distribution of opportunities for gainful employment among geographical areas. The designation of areas under the regional development scheme testifies to this concern with locations of slow growth, unemployment, and depressed incomes.

> **It is likely that employment opportunities for Native people can be expected to increase at a moderate rate until the mid-1980's and then at a rapid rate until the turn of the century . . . Some slight increase can likely be anticipated in the development of major industries on reserves and Metis colonies.** *(Social Futures,* **p. 149)**

The rationale underlying the creation of jobs for Native peoples is in many respects similar to that related to job opportunities for the poor and disadvantaged. Increasingly vocal pronouncements of Native peoples on their economic and social plight have prompted all levels of government to take action to forestall a Canadian replica of the black-white social convulsion in the United States. The ghetto explosions in the United States warn us of the social costs entailed by the neglect of groups trapped in the vicious circle of poverty.

Despite problems of intercultural adjustment, the encouragement of industrial development on the reserves is functional in the sense that it affords Native peoples the opportunity to recover some of their self-esteem. Further, it brings a significant manpower element into the mainstream of Canadian economic life. Instead of being dependent on the state for transfer income (e.g., welfare payments), and instead of siphoning off for consumption purposes resources that can be used for

investment, Native people will in the long-run contribute substantially to federal and provincial taxes and to the gross national product. Both levels of Government will have to take the long view in balancing social benefits and costs.

Response

If it is to remain in the forefront of economic progress, a modern economy requires a skilled labour force. The idea of vocational education as a responsibility of the school is, of course, not new. But while the role of trained manpower in economic growth was appreciated by the classical economists, the application of the concept of capital to man is of very recent vintage, stemming largely from the post-war discrepancy in the growth experience of war-ravaged countries of Western Europe and of Japan as against the less developed countries which, despite massive injections of capital, have failed to take off into sustained growth. Education is expected to create the human capital, the skilled manpower, needed for economic growth.

The vocational and the social goals and processes of education have not always been compatible with one another. The new investment emphasis in vocational education now comes into conflict, sometimes dramatically, with consumption emphases in modern education—particularly with concepts of humanization, permissive social choices, leisure education autonomy, and value judgments. Indeed some of the more critical problems related to economic growth and organization are themselves based in conflicting values with respect to such matters as economic nationalism, capitalism and socialism, economic security.

Educators would be false to their mission if they were to opt in any exclusive way for either alternative: investment as opposed to consumption education, or vice versa. The temptation to do so is substantial. On the one hand the temper of the times, involving as it does an increasing demand for consumption benefits, might too easily crowd out the vocational programs necessary for the very survival of the economy—hence of national viability and of the schools themselves. On the other hand, given tight budgetary constraints and competition from other public services such as health and material welfare, an "efficiency" orientation might lead to interpretations of accountability in purely economic terms.

A continuing emphasis on general education at all levels would seem to provide the best general base for consumption *and* investment education. This after all is what employers say they want. And it is clearly the major means of developing the knowledge and skills necessary for coping flexibily with a lifetime of social, technological and economic change.

Obviously—beginning in the latter year or years of the high school, and properly supported by counselling services—there must be some differentation of courses or programs that are investment oriented. This differentiation from general education must increase, though it should never

become exclusive, through post-secondary institutions (colleges, institutes, and universities) devoted wholly or in part to vocational education. Separate goal definitions for differentiated programs and institutions will help in problems of accountability.

The allocation of resources, and even of incentives within the post-secondary sector must obviously reflect manpower needs. There has, for example, been a large output of graduate technologists throughout Canada, consequent on the stimulation grants provided by the Federal Government in the early's sixties to encourage the development of non-university forms of training. The market for graduates of such institutions in Alberta has remained buoyant in spite of the generally depressed economic conditions of 1970. It is possible that the greater part of the expected increased participation of the 18-24 age group in post-secondary education will be in such non-university training.

Provision will have to be made for increased participation in higher education on the part of all social groups. (Special opportunities must be made available to women, who will perhaps show the largest proportional increase). A larger variety of program alternatives will be required, together with improved counselling services designed to relate abilities to vocational options. This is a crucial task if the private and social costs of misfits are to be prevented.

It must be remembered that educational investment is relevant not only to the efficiency in allocating manpower resources, but also to income redistribution. Education will have to be responsive to the increased demands made on it by disadvantaged groups in the society.

Compensatory and remedial type educational programs that recognize the special problems of Native peoples and of other groups trapped in poverty will have to be created if we are to escape "avoidance" costs or the longer-run costs of neglect, even of "benign neglect." Such programs will also help in reducing the adverse effects of technological change on certain categories of labour. Trade schools, institutes of technology and adult education institutes should work in close collaboration with departments of labour, manpower and welfare.

WORK, LEISURE AND PLEASURE

Forecast

> **Two broad alternative concepts of leisure emerge in this forecasting exercise. In one view, the present work-leisure dichotomy will be maintained; in the second, this distinction will lose most of its significance.**
>
> **The first view anticipates that no foreseeable change in economic development will permit the restructuring of job tasks or work situations sufficiently to allow a change in the differentiation between work and leisure . . . This means that most people will still "work" and then "play" in the year 2000.**
>
> **The second view postulates considerable economic development and technological innovation: enough, in fact, to create a drastic reduction in the size of the labour force . . . Eventually the Protestant work- ethic will break down and a self-fulfillment ethic will probably develop. "Work" will be used to further the objective of the self-fulfillment ethic in the same way that leisure is now used by some individuals . . . Many of these developments, if in fact they do occur, will begin in the 1990's, and work and leisure will be fully amalgamated before the year 2000.** *(Social Futures,* **p. 101)**

The above forecast, inconclusive as it is, suggests something of our confusion about the relationship between our two major activities. We have long been conditioned to the idea of work as the opposite of play (more recently, to a "work hard—play hard" kick). Our western traditions, close as they are to pioneer days, reflect approvingly the idea of "a hard day's work." More broadly, our symbolism shows an almost romantic attachment to "honest toil" and "the sweat of one's brow," and to their social and even their spiritual significance.

There is, of course, nothing that fundamentally menaces these attachments in the work-fulfillment ethic. Indeed it is the dichotomy itself that offers something of a threat to ideas of the dignity of labour. And unless we are attracted with almost puritanical perversity to the idea of making something difficult or unpleasant for its own sake, the work-fulfillment ethic (work in the play sense of preferred activity, the projection of work interests into leisure time, and vice versa) ought to argue a special dedication.

At this point we must, of course, remind ourselves of the classic danger to Jack of all work and no play. Presumably our leisure lives ought to be something different from, or at least *more than* our working lives. Presumably then the philosphic controversy about the doctrine of work

and the doctrine of leisure is less significant than the *quality* of our working lives and of our recreational lives as such.

> **Although the amount of daily leisure time will probably increase steadily within the next 35 years, increase will be greater in descending order across categories (professional-managerial, white collar, skilled labour, unskilled labour). The unskilled labourer, for example, will have the greatest increase in leisure time per work day . . .**
>
> **Length of annual vacation will probably increase for all categories . . .**
>
> **The average age of entry into the labour force will probably increase slightly for all but the unskilled labourer. This group's entry age may rise dramatically, especially from 1980 onwards. The large discrepancy in entry age between unskilled workers and workers in other groups will, therefore, be eliminated by 2005.**
>
> **Retirement age will probably decrease . . .**
>
> **Forecasted early retirement and deferred entry into the labour force will diminish the worker's total "work life."**
>
> **Increased unemployment is also forecasted throughout the study period. The rate of increase rises sharply after 1980. By the year 2005 almost one-third of the labour force will probably be unemployed.**
>
> **Changes in the amount and distribution of leisure time will affect the skilled and unskilled labouring groups much more dramatically than the other groups. Skilled labour in the future will become a "leisure elite."** *(Social Futures,* **p. 103)**

It has been suggested that one means whereby society may be helped to make a judgment about the validity of work-leisure ratios lies in assessing the quality of each component. If under a regime of decreased working time (but presumably with increased technological effectiveness) job responsibility and productivity can be maintained or improved, that is one thing. If on the other hand such a regime turns out to be merely transitional toward the progressive deterioration or the evasion of these features, it is quite another. The concomitant lies in the uses to which we put our increased leisure—its quality and emphasis (self-fulfillment, social service, or other). Some of our judgements may well be specific to occupational categories: skilled labour, for example, is forecast for the greatest increase in vacation time; unskilled labour, for the greatest decrease in work days and work weeks, and for a dramatic increase in the average age of entry into the labour force (from 18 in 1975 to 24 in 2005).

The long-range forecast (2005) of an unprecedented unemployment rate like one-third, and of a twenty-two hour week for skilled workers, raises fundamental questions about our social and economic policies and their evolution in the coming decades. The first of the above forecasts does of course suggest a real alternative to our attempts to deal with our current "high" unemployment rates—not by reducing them, but by increasing them (deliberately or by default) to the point of vastly increased welfare services or even a guaranteed annual income. The second forecast, that of skilled workers as a leisure elite, is simply a projection of developments already well under way. Under such a regime professional-managerial and white collar workers would presumably continue to work longer and for somewhat higher rewards—whether financial or self-fulfillment.

The advantage of these highly permissive arrangements would be to offer individuals a genuine choice of life styles both in work and in leisure—somewhat bounded, of course, by their abilities and their opportunities, but free in terms of their motivations and their preferences.

Given this kind of option, how would we choose? Where would we find our priorities? As "swinger cop-outs," in money and in pleasure as such? Or in more civilized roles—in some kind of self-actualization through work and leisure, as separate or merged entities? Lacking definitive forecasts, where do we start from, today?

It is perhaps more difficult to generalize about our working lives than about our recreational lives—if only because they are generally less visible. It is certainly easy (no doubt much too easy, for the most part) to leap to the conclusion that the main goal of our working lives is financial—whether with reference to the professions (as instanced by the current income level of medical doctors) or to the trades (recent awards running as high as forty-five percent for three years). We seem at least to have moved a long way from the honorific position indicated in the old adage, "an honest day's work for an honest day's pay." A cynic's view would show us closer to "the highest possible pay for the least possible work"—unemployment insurance and health benefits thrown in.

In the more visible world of recreation a good deal of the highest possible pay seems to go for physically exciting things and experiences, gadgetry and thrills—bigger and better motor cars, skiis, snowmobiles; bigger and better football games, topless dancers, orgasms. And, of course, bigger and better television sets—as a means to bigger and better vicarious thrills of all kinds. Even our upgraded appreciation of the environment seems at times to be less aesthetic than gluttonous, for "kicks": we lay it over with exhaust gases, and litter it with our garbage.

Can it be that the mid-century message of the atomic bomb has got through to us at last, that we feel ourselves to be in a frenzied race against time, and that we therefore want to exact the greatest possible quantity of excitement from our world before it and we disintegrate together?

Physical excitement is, of course, one of the legimate delights of living. The exhilaration of the ski run, of the underwater world of scuba, or of sex—these are not to be disparaged. Indeed such experiences at their best have both intellectual and emotional components. It is when they lack these components—when pleasure becomes purely glandular or visceral—that they can be called into question. It is when they take on the spirit of the "binge," when they become associated either directly or vicarously with inhumanity or violence, that they become limiting rather than enlarging, impoverishing rather than enriching. And it is when they pre-empt the fields of leisure and pleasure—excluding gentler and more humane activities associated with, for example, the fine arts—that one may deplore the emphasis.

As a kind of reaction to the work-pleasure establishment, (and particularly to its cop-out extreme) the ethos of the flower people, both in the world of work and in the world of pleasure, deserves study. Their questioning of the work ethic, their refusal to be turned on by traditional success symbols, ought to be thought-provoking. At the same time it is difficult to see how some of the services we most value (social services, mainly) can be developed or maintained without disciplined career choices and sustained career preparation. And in the world of leisure and pleasure, in the drug culture, Man, it is difficult to see many sights or in hard rock to hear many sounds that bid fair to raise our standards of aesthetic appreciation.

Response

The forecasts on emerging ratios of work and leisure time strongly suggest that in the future most of us will play, if not more than we will work, at least more in relation to work than we have done in the past. Unless, therefore, we are prepared to argue that our working lives are "more important" than our recreational lives, or that vocation requires preparation whereas leisure does not, we must redress the balance of our educational programs. These at most levels have paid little attention to leisure. They have been more concerned with work, but mostly on a limited "job preparation" basis.

A very important function of our educational institutions, then, is the opening up of perspectives on various kinds and manifestations of work and leisure. The purpose would be evaluative as well as preparatory. In vocational education the value dimension should provide each individual with the opportunity of resolving for himself such questions as what work is, its physical and spiritual significance to him, its significance for society at large and its relationship to recreation and leisure. The practical (operative) dimension should of course provide occupational information, career counselling, try-out opportunities and skill development. Educational resources appropriate to the above include general education throughout any or all levels, vocational education and work experience programs in the secondary school, in post-secondary vocational institutes and in professional university faculties.

Education for leisure, like education for vocation, has much to do with enlarging the individual's range of options—opening up vistas and pros-

pects which transcend direct physical kicks and gadgets, on the one hand, and "glued to the tube" vicarious experiences on the other. If individuals really want to spend all or most of their leisure time in these ways, it ought to be in spite of or in the light of, rather than in ignorance of alternative possibilities.

What alternative possiblities? Not just time-filling items, but activities genuinely designed to contribute to self-actualization. Physical activities (golf, swimming, and other non-team sports) that the individual can pursue in his own time and in his own way. Good reading and the rediscovery (or, for some, the discovery) of libraries, and the satisfactions to be had from print materials other than the lurid periodicals and paperbacks generally on display. Documentary and non-soap television and motion picture programs. Hobbies and crafts. Museum visits and attendance at exhibitions. Fine arts activities—whether through creative involvement, or looking or listening, or both.

After the family, schools have the initial and perhaps the major opportunity of opening up these prospects. But at some stage—depending largely on vocational interests and abilities—most students will move from schools to more specifically vocational institutions. "Redressing the balance" here will mean mostly the awakening or the furthering of broad leisure interests, together with the provision of or assistance toward appropriate facilities.

It seems necessary to remind ourselves that education for leisure and the provision of leisure facilities (bearing in mind their diversity and extent) are not necessarily the same thing. To the degree that they can be associated with educational institutions, however, the dividends are likely to be greater for all concerned. It has been suggested, for example, that community schools could become "leisure centres," providing facilities for leisure activities of all kinds. This is all to the good. The only caveat would be against thinking of them as designed primarily for adults, "after school." For if the work-play dichotomy is at all artificial and if education for leisure is a proper part of general education, the facilities themselves ought to be continuously available both to young people and adults.

SCIENCE AND TECHNOLOGY

Within the futures idiom the following "breakthrough" points (selected from *An Outline of the Future)* will serve to illustrate the kinds of scientific and technological change that may face us during the coming decades.

Date	Discovery
1975 (perfected by the year 2000)	Genetic control—related especially to artificial life, life synthesis, life copying and altered reproduction techniques. (pp. 91-88, 106)
1975 (perfected by the year 1985)	Personality management and thought control. (pp. 111-114)
1980 (perfected by the year 2000)	3-dimensional television—an invention which will be used as a primary means of communication in the years following this date. (p. 83)
1982 (perfected by the year 1992)	Successful use of artificial and transplanted body parts. (p. 100)
The early 1980's (perfected by the year 1985)	The computer revolution. (pp. 57-66)
1985	Automated rapid transport, both personal and mass movement. (pp. 67-69)
1985	Commodities transport by pipeline —wheat in particular in Alberta. (p. 78)
The late 1980's (perfected by the year 2000)	Efficient control of nuclear power. (pp. 17-21)
1990 (most progress after the year 2000)	Some forms of mental illness eliminated. (p. 115)
1995	Large-scale exportation of water resources to the United States. (p. 46)
1990's (completed by the year 2000)	A change in social structure modelled upon the structure of communications and information systems. (pp. 57-66)

1990's (perfected by the year 2000)	Weather control on a limited basis. (p. 49)
The late 1990's (perfected by the year 2000)	Synthesization of all foods, fabrics, paper products and construction material. (pp. 23-25)
2000	The efficient use of vertical—particularly underground—space. (pp. 53-55)
2000	Successful attempts at controlled environment, e.g., domed cities, underwater and underground habitats, etc., in response to anticipated massive pollution. (pp. 50-51)
2000	The rudimentary use of gravity as a power source. (p. 21)
After the year 2000 (with some progress in the 1990's)	A substantial increase in extension or prolongation of human life through medical practices. (pp. 98-106)

There is something of a risk, not untinged with melodrama, in the presentation of any such list. It has the quality of a "spectacular"—focusing our attention on the emergence of the new while disregarding the continuation of the old and familiar. It tends to mask the fact that life in the year 2000 will in many substantial respects be much like it is today. Children will, for the most part, still be born of natural parents, grow up in some kind of family situation, and go to some kind of school or schools. People will still work and play, though these activities may be differently proportioned or merged. They will still live on the earth's surface and in the out-of-doors, no matter how polluted. And they will still die by the end of their centuries—despite cryogenics, the replacement of body parts, and other Twenty-first Century intimations of immortality.

The risk of the spectacular, however, goes with facing the future. And the central point, with science and technology as with all forecasts, is not that they *will* happen, but that they *can* and *may*. Hence the need to evaluate them, to assess the alternatives, to take those actions and to make those responses most promising for human welfare. The kinds of welfare likely to be influenced by developments in science and technology range from the purely physical and material through the various amenities of living to our most intimate and crucial psychic and moral concerns.

Our evaluation of those technologies that relate to economic growth and development—transportation, communication, computerization, use of land and water resources, nuclear power—will obviously have to be made with reference not only to economic benefits per se but (and even more

importantly) with reference to their impact on the psycho-physical quality of human living. One aspect of this is the disruptive effect of new technologies on occupational patterns and craftsmanship. If there is any lesson to be learned from history, it is that human inertia rather than technological change is the villain in this piece, and that we had better acquiesce in, rather than fight, those changes which advance the speed and effectiveness of production—using the manpower increment for other kinds of work, or for leisure. There is a parallel between computerization in our time and the industrial revolution in the Eighteenth and Nineteenth centuries.

Another kind of disruptive effect, however, we may well judge quite differently. This has to do, basically, with aesthetics, and with the quality of the environment. The option here may not always come down to one of a pleasant and livable, versus an ugly and menacing, physical environment. But in those cases where it does—where the choice is actually between clean air and smoke power, between clear running water and high-speed detergents, between a beauteous landscape (complete with wild flowers and song birds) and oil for the United States or strip-mined coal for Japan—then we must surely look beyond our ephemeral consumptive appetites and ask ourselves in all grimness what it is we really want for ourselves and for our children.

Fortunately, many of our most valued amenities resulting from scientific and technological developments do not involve this drastic kind of choice. Information storage, admittedly, presents some special problems (particularly with reference to privacy) which we must learn to control. But communications networks and facilities, weather control, newer foods and fabrics—these we can accept, if we are at all amenable to change, as (mostly) unadulterated blessings.

Of a totally different order are biological and bio-chemical "exploration." Discoveries in this field will involve us in controversies and decisions compared with which those related to the Pill and even to abortion seem relatively mild, and that raise a host of problems far transcending those of the *Brave New World* and *Nineteen Eighty-Four:* thought control, genetic selection and manipulation, parthogenesis, artificial wombs, cloning, even the artificial creation of life itself.

Here the area of choice will involve us in matters which immemorially have been regarded as "sacred." This may be an irrelevant orientation with which to approach the problems of "man in control of his own biological future," but we certainly cannot escape crucial questions of ethics, and of other philosophic and political considerations, involved in their arbitration. Not the least of these relate to operative phases—to the "right" to experiment, in degrees attaining the most excruciating limits of pain and torture, with humans and with animals. We are thus faced with questions not only of reverence for humanity, but in Schweitzer's terms of reverence for "life."

Response

The implications of developments in science and technology for education

are at least twofold: the need, first, for a better understanding of them per se: and second, for a more widespread and purposeful utilization of them (especially technologies) in the process of education.

The term "understanding" refers, of course, to a time-honoured objective in science teaching—"knowledge of the subject" in experimental, theoretical, and (to a lesser extent) in applied phases. Recently the emphasis has been on more inductive teaching, as befits the scientific method. But now and in the future the emphasis must be still broader and more open: it must have reference to the central attitudes and dispositions of science, and to the value questions that arise from scientific and technological advance.

This is to reject completely a proposition that the way to deal with difficult human and moral problems, both in and out of "school," is to declare a moratorium on science and technology until our answers to the former somehow "catch up." That we are behind in our answers is clear. But to divorce our quest from the very phenomena that cause or intensify them would place us still further behind. Indeed it may well be argued that what is most needed in the solution of our sociological problems is the application of that objective rigour that has contributed most significantly to the dramatic success of scientific and technological endeavor. This is not to argue that all sociological problems are amenable to "scientific" solution, nor that any final solutions can derive solely from school study. It is to argue that the involvement of educational institutions in the study of our most pressing problems is vital both for education per se, and for advancing our total readiness to deal with them.

As to our utilization of educational technologies in the processes of education—we lag far behind their potential. We have resisted them for a variety of reasons: cost, problems of organization, the "dehumanization" argument, teacher resistance, general inertia. But costs, in the total economy of public education, are recoverable. Organizational problems, given understanding and goodwill, can be solved. The dehumanization argument misses the mark. As for teaching—there is the cliche that teachers who can be replaced by machines deserve to be. The success of communication technologies under commercial auspices (where they have been well funded and imaginatively handled) confirms the view that our best, indeed our necessary future lies in the strategic exploitation of these technologies for many kinds of teaching and learning. We must overcome the prejudices and the inertia that prevent their optimum use in the enterprise of education.

Three-dimensional television, for what it may be worth, is still very much in the future. But a stimulating kind of two-dimensional television is available to us now, as are computers and, increasingly, data banks and other kinds of information storage. They will not replace teachers and books but, properly conceived and imaginatively engineered, they will make vast differences to the ways in which we prepare teachers and plan libraries for the coming century. They will even make vast differences to the ways in which we plan and build schools—not as classroom blocks, but as multi-faceted centres for genuine discovery and learning.

PHYSICAL AND MENTAL HEALTH

Forecast

> **There will be a sharp upgrading of values ascribed to health care between now and the turn of the century. The following factors are identified as significant in the upgrading of health care: the lack of qualified personnel in the future, rising standards and expectations on the part of the public, more research and greater availability of knowledge to the public regarding health care, the change in emphasis to preventative rather than corrective medicine, and the spread of a "fitness syndrome" . . . (*Social Futures*, p. 53)**

It seems anomalous that, at a time when the quality and availability of health care is greater than ever before, the forecast values ascribed to it should be upgraded in terms of some kind of scarcity factor—viz., "lack of qualified personnel in the future." The reason, allegedly, lies in our expanding expectations. We value public health care, not only for what its broader availability has done for us, but for what still broader availability *could* do for us. Those services now available are still incomplete: routine dental care, for example, is to be had only on a free-enterprise practitioner-client basis.

We have obviously reached a critical point in the provision of public health care. Either we go the rest of the way, providing total health services for all Albertans; or we hold the line, or maybe even retreat from our present level. The first alternative involves even greater calls on the public purse—whether through compulsory insurance together with federal and provincial subsidies in some combination or other, or whether by virtual nationalization of health services or by some kind of accommodation between government and practitioners and health care institutions. The second alternative involves a much lesser "state" commitment—whether in terms of political philosophy, or of an economic argument that total health care is simply "too expensive," or that it would overextend the services of our limited supply of practitioners and facilities.

Given the forecast values, the latter arguments seem less than convincing unless we are prepared to argue further that it is impossible to enlarge the supply of practitioners, or that basic health care (unlike basic education, justice, or even good roads) is really a "runaway aspiration"—something that we cannot afford to make available to everyone, or that it ought still to be available only in accordance with the individual's ability to pay. Indeed it is difficult now to think in terms other than those of the Economic Council of Canada in its 7th Annual Review: "adequate, timely, efficient and humane health care for all Canadians." This of course raises problems of the delivery of health care, socioecon-

omically and (in sparse settlements) geographically. It raises also the question of mental health, and of the degree to which it can and should be articulated with the care of physical health.

> **An increasing number of individuals will find it difficult to cope with rapid social change. As a consequence, alienation will become more prevalent and with it the rates of mental illness will increase. In addition to those listed earlier, problems attending drug-use, alcoholism, suicide, mass media manipulation of behavior and opinion, and the acquisition of reliable information will become increasingly severe as we draw near to the end of this century.** *(Social Futures,* **p. 175)**

If our problems of physical health are large and formidable, those of mental health seem more so. This is not only because they are themselves more dispersed, socially, but because psychically their causes are less definable, controllable, attackable. Probably in no other area has there been a greater temptation to treat the sympton as the cause. Alcoholism, drug use, and suicide we have tended to treat as crimes, or at least as "offences," subject to the rigour of the law when or if the offender is available for trial and sentence. It may of course be that certain kinds of violent behavior associated with the foregoing are referable to categories of crime and punishment. But the stated acts themselves are clearly symptomatic of deeper problems. These may range from sheer physical deprivation to the mental and emotional anguish of our struggles with conscience, or with the creation of a viable credo.

Should society, then, be remedial or punitive? The question is surely rhetorical: our need is for psychiatrists rather than jailors. But we must, of course, aim still farther back. As in the case of physical health, our basic goal must be prevention rather than merely correction. Prevention in terms of an adequate income, health care, housing, and other elements of well-being which make it possible for us to live "non-crisis" lives. Prevention in terms of a hospitable ecological environment. Prevention in terms of a humane social and institutional environment, within which the individual can establish his own identity, evolve his own set of values, and live cooperatively with others.

> **The inability of individuals to develop and pursue goals which they consider worthwhile in an increasingly complex social order will contribute to more intensive and pervasive forms of alienation. The weakening of family structure, society's gradualism in dealing with problems of population control, technological change, governmental bureaucracy, pollution, leisure time, injustice and income redistribution, and increased difficulties in comprehending social**

> **and technological change are important factors in this trend. New and important opportunities for participation in the ordering of change processes as well as the restabilization of social institutions, and, along with the process, the clarification and learning of appropriate values and expectations, will stem alienation by the last decade of this century.** *(Social Futures,* **p. 177)**

> **The prevalence of depression and the incidence of mental illness will likely increase appreciably and steadily during the coming 35 years. Increased emotional stress resulting from overcrowded living and working environments will increase the incidence of neuroses and other mental illnesses. Over-population, urban crowding, and increased high-rise apartment living will encroach upon the individual's need for social distance. Major problems, moreover, will be caused by rapid social change. Personal values will not have stable social support. Inability to adapt to change will be one of the most common factors causing mental illness.** *(Social Futures,* **p. 179)**

We of course delude ourselves if we think that the above complex of problems is entirely new. "Gradualism" on the part of society is certainly not new. We have always been gradual (culpably so) in dealing with some of these very problems: injustice, income redistribution, bureaucracy, alcoholism, suicide. We are now being gradual in dealing with newer ones: goal and value shifts, social and technological change, pollution, urbanization, drug use, and the media. What is new is our growing and massive refusal to tolerate gradualism—a phenomenon induced partly by the rapid rate of change itself, and partly by the recognition that we can, if we will, do something about our problems.

We are told that our greatest difficulties relate to the development and pursuit of goals and values within the context of rapid social change. We may hope that, as forecast, opportunities for participation, restabilization of institutions, and value clarification processes will substantially reduce alienation (if not mental health problems generally) by the end of the century. Meanwhile we must ensure that these processes, particularly with respect to families, churches, cultural and ethnic groups (as discussed in the following sections) work toward the evolution of new and viable norms, rather than toward the reassertion of outmoded ones—some of which have themselves been root causes of mental health problems. "The weakening of family structure," for example, ought not to suggest any reversion to patriarchal arrangements under which a number of damaging processes, inimical to the healthy functioning of mind and spirit, are likely or possible. Parental rigidity or harshness, which can mutilate the child psychically and in time provide damaging patterns for his treatment of his own children. Or the steady imposition of the parent's will on the child. Or the arrogation of "ownership" of the child, which in time can lead the child to practice the same arrogation with respect to his children. Or inconsistencies or conflicts between the professed values and the operative values of the parent and his society. Or the inculcation of myths (racial, ethnic, religious, and other) which have to be unlearned, trauma-

tically—as a result of which process the individual is forced into a condition of psychic rootlessness or of living in a world constructed in defiance of his perceptions and of his reason. Our world of change, surely, is devastating enough without the complication of avoidable shocks and tensions.

Response

Public and private plans of one kind and another for the care of physical health are now operative in this and other parts of the country. They are, however, in a state of flux. They are also organized by family units. This fact, together with some of the uncertainties relating to the future of these units, suggests that the school organization of health services (as in some other parts of the world) and where necessary of special education might provide a superior basis for their delivery. Such a basis would be expecially valuable as a means of reaching disadvantaged children.

At elementary levels, surely, the very concept of child nurture and care implies proper food, exercise, the vetting of physical growth processes, the diagnosis of physical health problems (including dental problems), their remedy and where necessary their referral. Colleges and universities already maintain modest health services: the "on location" sort of thing seems to be economical of time, energy and cost for all concerned. It is, of course, possible to argue that college and university students, as adults, should avail themselves of adult medical services.

If the need for improvement in the extent and delivery of physical health care is substantial, the need for improvement in the care of mental and emotional health appears crucial. There is no alternative "public" plan, as for physical health. Nor can there be—mental and emotional health being so subtly and intimately bound up with the whole process of living.

Education is a major part of this process. Sooner or later, depending on the future of "the family," the school must provide a kind of surrogate home which extends the atmosphere of the original home (if supportive and benign), or which compensates for it (if not), or which indeed transcends it. Whether the home be judged favourably or otherwise, we recall the forecast that many parents will spend less and less time with their children, and influence them less.

There is obviously need for greater attention to mental health needs and problems at all levels of education—through teacher and administrator sensitivity and awareness, and through the availability of special personnel (professional counsellors and psychologists) either as school staff or on referral. But in attempting to identify the essential nature of the school's contribution to mental and emotional health, the emerging concept of "humanization" seems most significant. At early levels the main characteristic and service of the surrogate home would be the provision of a socially loving, intellectually stimulating community. At senior and university levels the emphasis, while not sacrificing emotional warmth, would be increasingly analytical and intellectual.

Following upon the home experience, schools and universities (each at the appropriate level) can help the student in formulating realistic and viable goals. They can broaden his perspective, providing a milieu wherein he can think, talk, study, and live out his conflicts, his hangups, his perplexities in ways often not possible at home because of family time constraints, inhibitions, inadequacies and incompetencies, ethnic and political and theological commitments—all with benefit of peer interactions, broad leadership and superior information resources. There is thus the hope of resolving inner problems and conflicts which otherwise may fester and grow into damaging attitudes, biases, and tensions.

Schools can help to resolve the shock of debilitating and demoralizing value conflicts—especially those between professed and operative values and value systems. At college and university levels this process will, of course, take place in a disciplined and scholarly way as part of organized courses and programs, as well as through less formal phases of life and education.

Alcoholism, drug use, and suicide have been described as symptoms. They are, no doubt, properly so classsified. But where their incidence in given situations warrants, they obviously need to be dealt with directly. One way is the provision of information, curricular or extracurricular. Another way is the provision of service, in school or by referral. Today, on many university campuses, students themselves operate suicide prevention bureaus, usually run by volunteers. Until the need decreases, it may be necessary for large institutions and communities to provide professionally trained counsellors, available around the clock.

One of the greatest needs of those of us who will live in the remainder of this century and beyond is obviously learning to live with uncertainty and change. This has become increasingly necessary in recent decades; it now becomes imperative not only for mental health but for survival. Schools and universities can in a variety of ways both formal and informal develop an attitude of continuing receptiveness to new ideas, a spirit of openness, the innovative questing attitude vital to the improvement of learning and of life. This is the essential maturity of our time. As such, it ought also to be an essential characteristic of our teaching force.

The success of the above processes obviously depends on the availability of abundant and accurate information both within educational institutions and without. It has been forecast that for a variety of reasons such information may be increasingly hard to come by. But if public education succeeds in establishing its compelling need, our students will probably succeed in promoting and indeed requiring its availability in the public domain.

HUMAN RELATIONS AND CITIZENSHIP

We begin with the individual, and with the needs, aspirations and rights claimed by him or proclaimed for him. But no consideration of the individual can long remain separate, even theoretically, from that of other individuals: interpersonal and intergroup relations are facts of the human condition—though they may vary greatly in intimacy and style. More formally organized, human relations merge into citizenship, and citizenship into political relations—all being in one way or another referable to considerations of law and order.

Forecast

> **Individuality will be a major theme in our society's future.** *(Social Futures,* **p. 43)**
>
> **What we can probably anticipate by the turn of the century is a government that is extremely devoted to the needs of the individual within that individual's social context.** *(Social Futures,* **p. 31)**
>
> **Increased societal complexity will require government to play a more regulatory role in interinstitutional and interpersonal relationships. In order to protect the freedom of others, the freedom of each individual will be somewhat reduced. This trend will contribute to the upgrading of values ascribed to freedom and liberty.** *(Social Futures,* **p. 45)**

In a democracy the values of individualism are not in question—at least in theory. The infinite worth of individuals, their infinite variety—these are taken as validating ideas of personal freedom, privacy, and various kinds of eccentric or deviant behavior. The personal benefit is self-expression and self-determination. The social benefit is the richness of diversity and creative social advance. What question there is lies in the determination of the critical point where personal and social benefits meet—where the prerogatives of the individual begin to conflict with the freedoms and privacies of other individuals (hence the importance of interpersonal and—in the larger sphere—of intergroup relations).

The nature or quality of individualism, its animating genius or spirit, therefore matters a great deal. It would be gratifying if the benefits conferred on society by individuals were characteristically motivated by social conscience and intent, or at least by recognizable goodwill. Where, however, these qualities are not in evidence, we settle for the driving force of curiosity, or of physical or intellectual daring. (Indeed there are those who argue, not too conclusively, that humanity and compassion tend to get in the way). But what we cannot settle for is complete egoism. At best, the selfish person simply isolates himself from his fellows. At

worst he becomes a predator, who sees his fellow and the rest of society either as "irrelevant," as obstacles to be bypassed or eliminated, or as "resources," to be used, abused, raped and disposed of once they have served his purpose. The Mafia and the motorcycle gang come to mind as stereotypes, although examples could no doubt be drawn from a variety of other fields.

> **There will likely be both improvement . . . and degeneration in interpersonal relationships. There will be somewhat greater tolerance for deviant behavior as codes of norms pertaining to interpersonal relationships are relaxed. The values ascribed to service, generosity, charity, and sincerity in relationships with others will be appreciably upgraded . . . However, it is likely that loneliness and social isolation will increase.** (*Social Futures*, **p. 157**)

Unfortunately the working out of interpersonal relationships must now take place in the context of some very difficult conditions related to population growth: urbanization, overcrowding, invasions of privacy, bureaucratization. In this situation it is possible to envisage at least two very different kinds of interpersonal futures.

One of these, rampant individualism, is dismal indeed. Except for limited group associations of one kind or another, the individual comes to see himself as pitted against virtually all other individuals in a competive struggle for "goods," if not for sheer survival. His allegiance is only to himself. With this orientation the main complexion of human relations takes on a jungle cast, or at least the impersonality and coldness of the large city—New York, London, or Tokyo. In a psychic sense privacy is easy, even inevitable: he simply shuts the other person out. In a physical sense it is difficult or impossible: in the street and dwelling place hordes of other individuals crowd in on him, creating the urge to ward them off physically. At the same time the devices of crowd control (from traffic lights and "keep out" signs to Mace) constrain his physical movement, and bureaucratic regulations and obligations (from social insurance registration to income tax) restrict his pursuit of private destiny. So the luxury of eccentric or deviant behavior becomes a myth, and the recognition of this fact hardens his heart and intensifies his determination to emancipate himself from the crowd. Each man then becomes, more than ever, a would-be island, a minuscule island among a million others, and struggles increasingly to enlarge the distance between him and his fellows.

The alternative future is much more hopeful. It suggests that because of reconditioning processes we may have overestimated the need for personal space and social distance. At any rate it forecasts—concomitantly with the upgrading of values related to liberty, privacy, and other "rights"—the upgrading of values ascribed to welfare, humanitarianism, and social consciousness. It forecasts also the upgrading of values as-

cribed to service, generosity, charity in relating to others; and points to various kinds of altruism that seem increasingly to characterize the activities of young people. It assumes that in spite of—or perhaps even because of—isolation, alienation and anomie, individuals will reach out to one another in a spirit of empathy and mutual helpfulness.

> **The influence of the family on the emotional development of the young and control over the socialization of the young will decline . . . Children will spend more time away from their parents, perhaps in an institutional setting conducive to peer group development.** *(Social Futures,* **p. 69)**

A crucial influence on the child's developing sense of self and other-self, of individuality and socialization, has of course been the family. There is every reason to wish for the continued and enlightened involvement of the family in the education of children, both directly and through cooperation with the school. But its direct involvement will, presumably, be less crucial in the future. Not only will family patterns be more permissive, but the child's home-bound world will be gone sooner. His dispositions, his loyalties, his own view of where and how he fits with other individuals and groups will be determined in much broader social settings—street, child-care, school, or community. The nature and quality of these settings therefore matters more than ever before, and may indeed provide critical contexts for the improvement of human relations.

> **During the 1970's and 1980's each of the current major divisions in Canadian society will grow wider . . . Although the widening of these divisions will not likely cause a demise of the Canadian nation during the next 35 years, the extent of Canadian unity and well-being depend largely on how effectively and how quickly these divisions can be arbitrated and narrowed . . . To counter reinforcing cleavages with "criss-crossing" solidarities is, perhaps, this nation's highest priority.** *(Social Futures,* **p. 15)**
>
> **Despite the widening of divisions within Canada, it is likely that the integrity of the Canadian nation will endure.** *(Social Futures,* **p. 30)**

What has been said of interpersonal relationships may be said, with some differences, of intergroup and intercultural relationships. It may also be said that an individual becomes an individual "becuase of his memberships." These memberships are not always, and perhaps not even characteristically, voluntary: we are "born" into families, churches, cultural, ethnic and even socioeconomic groups. Frequently, however, the individual identifies or joins forces with other individuals to form

groups or associations devoted to particular purposes. In so doing, he surrenders something of his privacy and something of his freedoms for advantages which, on balance, he generally assumes to be countervailing.

It is encouraging to note the very great number of groups formed and existing in our society primarily or solely for humanitarian or altruistic purposes: for example, The Red Cross, OXFAM, The Unitarian Service Committee, The Society for the Prevention of Cruelty to Animals. It is encouraging also to note that the membership of such groups cuts across that of a great many others devoted to selfish or sectional objectives, and that the dedication of individuals within them provides an inspiring indication of and model for their enlargement to broader and broader segments of the population.

Meanwhile we had better face the fact that whatever degrees of altruism characterize Canadian society today and within the coming decades, the promotion of group interests constitutes a major motive. Where these interests conflict, as they often do (else why form groups?) intergroup relations take on somewhat the same elements of competition and struggle that characterize interpersonal relations. The English-French division, as we know, is ethnic, religious and linguistic. The Red-White and Native peoples divisions are ethnic and linguistic (and, derivatively, economic). The East-West division, the labor-management division, and (to the extent that it is organized) the rich-poor division are primarily economic, although there are some subtle value involvements as well. The young-old division is, of course, too complex to be simply characterized.

Different groups, like different individuals, contribute to the richness of society. Even when they are formed militantly, out of a sense of persecution or deprivation, they may contribute usefully to social reform by proclaiming issues and even pressing aggressively for their resolution. But where their philosophy and tactics (or, indeed, those of reactionary groups) are substantially selfish or predatory, where polarization and confrontation lead to entrenchment, where argument and ideological thrust give way to violence, the group serves neither its own nor the nation's interest.

> **Consensus politics will be replaced by protest politics to an increasing degree** (*Social Futures*, **p. 117**)

This forecast practically enforces attention to the term "participatory democracy," and to alternative interpretations thereof. The extreme of protest politics is *participatory* with a vengeance. Potentially all individuals and groups, in effect declaring themselves to be "not bound" by established procedures for reform, promote or participate in proclamations, manifestos, rallies, demonstrations, riots, burning, looting—even kidnapping, mayhem and murder. The theoretical justification is not new: conceived wrongs are to be righted by any tactical means—even by other wrongs.

The minimum of consensus politics, on the other hand, is hardly participatory at all. It involves simply the availability of the franchise (which may or may not be used) once every few years. The elected government is then expected to do its duty, bureaucratically, until the next election. It is hardly too much to say that this minimum may be largely responsible for the emergence of protest politics. It is at least possible to argue that this conception of government—without continuous popular feed-in and feed-back—is increasingly derelict.

It is unlikely that society can survive continuous escalation of protest politics and yet survive as a society. The spectre is one in which any individual or group—merely disgruntled or disenchanted, or believing itself to be the victim or injustice, or conceiving itself to be in possession of some kind of formula for the improvements of its own lot or of society's—takes or tries to take matters into its own hands. It is unthinkable, that is, that we could live in a perpetual state of anarchy, of revolutions.

At the same time it has been suggested that the older and more serene type of parliamentary democracy can no longer serve our needs—if indeed it ever did. To survive, as forecast, will require a massive program of public recognizance and action. It will require, on the part of the government, more and more rapid responsiveness to manifestations of discontent, vastly improved information and communication, increased moral as well as political sensitivity to deprivation and to the needs and aspirations of disadvantaged groups, the reduction of socioeconomic differences, more immediate and more substantial efforts toward reform. It will require, on the part of protesters and protest groups, more self-discipline and broader social outlooks, greater sensitivity to the rights and claims of others, an understanding of the need for some kind of centralizing authority, and a clear recognition that acts of violence form no part of a truly ethical system.

Implicit in the foregoing is a very great need for the development of compatible intergroup images and solidarities. Every Canadian, immigrant or native has some characteristics by which he is categorically within an opposing group or groups. Cynics will point to the world-wide gap between rich and poor, yet many of our young people have voluntarily foregone the seductions of economic success in favour of more socially valuable priorities and futures. It is this kind of sensitivity and conscience that provides some measure of hope for the resolution of group differences—and even, perhaps, for the evolution of a Canadian identity.

> **The need for law and order will increase sharply over the next two decades . . . Law and order values will likely be somewhat upgraded during the 1970's.** *(Social Futures,* **p. 165, 167)**
>
> **Crime rates . . . will increase appreciably during the next two decades.** *(Social Futures,* **p. 171)**

Given the hope that the crisis proportions of crime and disorder will have passed by the end of the century, their forecast intensification during the next ten or twenty years must still elicit newer and better kinds of social action during that period. It is not enough to shore up the forces of law and order, nor even to increase them dramatically so as to enable them to "cope" with dramatic increases of crime and disorder. One cannot "police" morality: if any substantial segment of society, at any given time, were disposed to engage in "criminal" activities, no available police force could possibly contain them. Neither could the courts, dispensing "justice," segregate or prevent them by example.

Theories of containment, then, offer the merest palliatives. Only individual and group dispositions to morality can make for a moral, law-abiding society. This brings us to the socializing role of society and its major institution, the school.

Response

The highest kind of individualism, and one which the school should seek to foster, is that which returns to society the increments due from its indulgence of individuals and groups. Such increments ought to refer especially to the welfare of society itself.

It is possible to argue that mankind's greatest need, in any historic period, has been the improvement of human relations. It is certainly possible to argue that now more than ever—having reached critical limits of anomie, value polarization, and even physical survival—we must make this our prime objective. In the words of the popular song, naive though they may sound, "What the world needs now is love, sweet love . . ."

While it does not follow that the school can be the principal (and certainly not the sole or initial) means for the production of this commodity, it seems vital to maximize its contribution. Granted, we do not know as much as we should like about all the mechanisms, pedagogical and other, leading to goodwill; and we may be on the threshold of genetic and chemical controls that would advance (alternatively, retard or even threaten) this development. But we are not without some practical insights.

We know, for example, that despite his individualistic and (frequently) selfish drives and motives, man's capacity for love and compassion is very great. We know that his potential for cooperation and service can be elicited and developed (just as it can be discouraged) by environment and example. We know too that accurate information (about personality differences, culture, and race) can be an important factor in forming and in modifying interpersonal and intergroup attitudes and behaviors.

The curriculum ought, therefore, to include objective, comparative studies of individual and group differences and viewpoints inherent in our pluralistic society, and of the common needs and aspirations that bind (or ought to bind) us together in the family of man. It ought to bring

together (rather than separate) students of varying background (ethnic, religious, socio-economic) and frequently as well those differing in other ways (age, interests, ability level, etc.) It ought also to sharpen our sensitivities and improve our facilities in interpersonal and intergroup behaviour and communication—particularly with reference to the operation of stereotypes, perceptions and feeling tone as well as verbal symbols, and even tactile and sensory modes of interaction. This is to suggest the importance of affective as well as cognitive learnings, and of educating the emotions and developing imaginative sympathies through literature and the arts.

As usual, the ways in which these emphases can be implemented must, of course, differ from level to level. Cognitive studies will have a story emphasis in the elementary school, ranging to sophisticated anthropological and sociological emphases in the university. At all levels, however, they ought to stress involvement and interaction rather than merely academic achievement. This is especially important in affective learning, where encounters ought to move in and out of the classroom to the total life of the institution.

It has often been said that the institution at large as well as the classroom ought really to function as a kind of laboratory in human relations. This it can now do more effectively than ever before—bearing in mind the forecast of the child's earlier school arrival from the home, and his more protracted (if intermittent) stay as an adolescent and as an adult during a process of lifelong education. Educational institutions can thus provide an environment for all levels and categories of individual and social living, with full benefit of the reactions of peer groups and the guidance of teaching staff—a place where individual and group rights, freedoms and privacies can be explored and discussed, where like-minded individuals may join and work in groups, where tolerance and understanding can grow, and preeminently where social consciousness and conscience can be developed.

If these experiences are to be effective, they must in major ways come much more broadly under student governance. One of these is curriculum: it is anomalous that we have expected students to dedicate themselves to studies of personal and social significance given little or no involvement in the determination of what their main emphases should be. Another is life styles: it is anomalous that we have expected students to develop personal and social initiative and discipline given little or no opportunity for responsibility or control. Areas now appropriate to student government, or at least to student participation in government, are surely much broader than those euphemistically labelled "student affairs"—limited sports and social activities normally subject to administrative veto.

At any educational level the most intimate and effective student input happens within the classroom itself. Here the teacher senses, or elicits, or more directly receives those indications of interest and concern that will largely direct the living and learning program. At more mature levels there will be some additional formal involvements, including representa-

tion on various school and university councils, and indeed on school boards and boards of governors.

This kind of involvement, surely, is appropriate to preparation for participatory democracy. Students must, of course, read, discuss and think their way through the devious issues of citizenship both in and out of school. But they must do more than merely "study" democracy: they must in a great many ways be given the opportunity of practising and indeed of living it.

As to the prevention of crime and other kinds of violent anti-social behavior—it may be too harsh to say that historically educational institutions have been semi-prisons: repressive, punitive, coercive. At any rate their watchwords have been obedience, discipline, control. If they are able to switch these emphases, both theoretically and practically, more positively toward the development of social sensitivity and conscience, they will contribute significantly and perhaps even crucially to the improvement of human relations.

VALUES AND VALUE SYSTEMS

Forecast

> **A complete shift in our value system and ideological orientation may occur in the very near future.** *(Social Futures,* **p. 31)**

While one may question the accuracy of the term *complete* to describe the shift or shifts in our value system or systems, they are certainly undergoing rapid and substantial change. The forecast specifies a sharp upgrading of values pertaining to personal and social well-being, a lesser upgrading of those pertaining to personal material welfare, less decisive shifts in those related to national and cultural identity, and a decrease in those related to patriotism, capitalism, and private ownership.

Other forecasts bearing on important value questions have to do with aesthetics and the environment, with the family, and with religion.

> **Environmental appreciation will be sharply upgraded during the next three decades. Aesthetic values will also be upgraded, but not quite as sharply as environmental values.** *(Social Futures,* **p. 55)**

> **The nuclear family will persist. It will, however, undergo substantial changes. The values pertaining to the permanence of marriage will likely continue to be downgraded. Fundamental modification in parental roles as a consequence of changes in work and leisure will have a considerable impact on family structure and child-rearing practices. Increasingly, child-rearing will become the responsibility of agencies outside the home.** *(Social Futures,* **p. 59)**

> **The values ascribed to a supreme power, or to a belief in a supreme power, will probably be steadily downgraded in the future; values ascribed to the concept of an existential self will likely be upgraded appreciably during the next several decades . . . There will likely be a turning away from traditional forms of religion during the remainder of this century. This will be reflected, partly, in a downgrading of values ascribed to denominational participation . . . The prospect of a new and pervasive religious revival in some form will likely be enhanced between now and 2005. . . . If such a revival does take place, it will probably not have the same forms of revival as we know them today . . . There will probably be an increased emphasis on harmonizing rather than self-debasing spiritual experiences, and on the community of man in religion in the future. It is likely that religious insitutions will adopt these emphases, but the increased importance of these sorts of perspectives and experiences will also be derived from the increased participation in various forms of individually obtained religious experience, such as medition, yoga, and drugs.** *(Social Futures,* **p. 81-87)**

Still other items of value involvement have been identified in earlier sections of this report: population (use of the pill, abortion, eugenics), economics (use of manpower, public and private control, poverty and the disadvantaged), work and recreation (their personal, social, economic and spiritual significance), science and technology (biological "explorations," thought control, genetic selection and manipulation, use of natural resources), health care (allocation of responsibilities for physical, mental and emotional well-being), human relations (individual and group aspirations and constraints, the nature of citizenship, legal and political arrangements).

The foregoing catalogue suggests something of the nature and breadth of the value controversies that will face us. How are we to resolve them?

We shall not, of course, resolve them all, or completely, or forever. Nor do we want to—unless we want a static society. But our present conflict-level is already too high, involving as it does religious and ethnic differences that make it difficult or impossible for our children to attend the same schools, and that generate antagonisms and hatred rather than love; economic value confrontations that disrupt our transportation, communication, social services, employment, trade and industry, and that deprive us of our daily well-being.

One means of resolving these and other stubborn problems would be to hand over, to delegate our powers of decision to a political or other power group, or power groups. The church or (more properly) churches have historically claimed jurisdiction over matters of faith and morals, and no doubt would be willing to do so again—even though they would differ among themselves. Manufacturer's associations and labour organizations would be happy to guide us, differentially, on matters related to the production and consumption of goods. The most "economical" means of doing this sort of thing, of course, is to surrender to a single political party (as in totalitarian systems) the total responsibility for all our human values and decisions.

If, however, we value individualism and self-determination, we must work for a different kind of future—one of maximum involvement. This is a moral, as well as a political decision. It registers a conviction that our best future lies in the improvement, rather than in the abandonment of our kind of political democracy. It also constitutes an assertion that freedom, within the limits of social concern, is itself a basic value.

Fortunately, many of the controversies to be negotiated have to do with "middle" values. They are not "basic" or "universal" values at the hierarchical level of love, honesty and freedom. On these most of us agree, although we often deny them in practice. Neither are they simply "preferential," as in matters of aesthetic taste. They have more to do with means, or *sanctions:* religiously, whether *the* way to love and goodness lies in denominational church affiliation or participation or in

some other kind of association or activity; economically, whether the way to the good life for all lies in free enterprise or in more socialistic arrangements; politically, whether the way to human welfare lies in provincialism, nationalism, or inter-nationalism. Admittedly, there are some ethical involvements here as well; for the most part, however, we are dealing with differences in theologies, tactics, procedures. Such differences may be very important—but they are surely not so important as to justify the creation and perpetuation of tensions and conflicts so severe that they at times bid fair to tear our society apart.

In the pursuit of "basic" values per se there are, of course, no such secondary differences to push aside, and we must presumably face all the risks of controversy. We shall likely find, however, that the risks are less and our progress greater if we approach our formidable task less in terms of confrontation and more in terms of clarification and interpretation. For even basic values, so called, are not all that unambiguous. *Freedom,* for example, needs to be set in the context of social concern. *Truth* is relative to our means of knowing. *Goodness* is almost meaningless without some kind of setting.

If it is to succeed, if it is to emerge with anything of the consensus necessary for genuine community, we must regard our search as a truly comprehensive endeavour, including all concerned individuals and groups —even those whose sanctions may sometimes seem to get in the way. In particular, it must involve students in schools and other educational institutions.

Response

The building of a new social order (to recall and then to qualify Counts) must obviously take place in the larger society rather than simply in schools. But schools are themselves a part of the larger society: students, the upcoming generations, are those who in future decades will have to make the crucial decisions not only about the nature and mechanics of participatory democracy but about such mind-boggling matters as the genetic control of life and perhaps even the creation of life itself. The school, as such, cannot make these decisions. Educational institutions cannot, *institutionally,* proclaim answers to controversial issues and pursue activist programs. (To do so would be to jeopardize their prerogative of academic freedom which alone makes it possible for them to discuss controversial issues). But they can provide the information base, together with experience in assessment and decision making. And they can provide a milieu wherein both teachers and students—through various kinds of communication, association and organization—can themselves engage in those activities to which their emerging convictions lead them.

In any event, we cannot really do other than involve students, for education is itself a process of valuing. What we can do, through our educational arrangements, is to make the process either more or less effective and liberating. Some of the means to this end have to do with an early beginning, an open approach, teacher competence and quality.

The school offers the child his first substantial opportunity to enlarge his value patterns beyond those of the home and (in many cases) the church. These patterns may, depending on our view, be either good or bad. But they *are* limited, and it is educationally vital for the child to explore beyond them while his attitudes and dispositions are still somewhat flexible, and before their sanctions are too thoroughly confused with values themselves. Indeed, if the opportunity occurs early enough, the child has something of a chance to apply his own pristine valuing competence before it has been inhibited and constrained by the selfish, or rigid, or institutionalized interventions of adults.

It is for these reasons that a pluralism *of* educational institutions (e.g., various kinds of "separate" schools or school systems) rather than a pluralism of ideas *within* the institution, provides no enlightened answer to problems of value education. Indeed its effect is usually the reverse. Except for a very small number of "free" schools, most non-public institutions are devoted to the perpetuation of particular (often esoteric) value systems, not to the study of values. They tend to limit rather than to enlarge value horizons, and so to substitute conditioning processes for education. Social divisiveness is increased.

The public school must therefore resist any attempt on the part of any group to engage it propagandistically in the defense or the promotion of sectional values—dying, current, or emerging. It is not its business to champion theism or atheism, laissez-faire capitalism or socialism, Bach or Baccarach. If we take the "basic" values as given, and at the same time achieve a general consensus on their more crucial interpretations, there is surely only one kind of indoctrination that has any place in the public schools of a democracy. This has to do with the very basis of democracy—a concept of the right and the capacity of a people, directly or indirectly through representative government, to exercise control over its own destiny, and in the process to maintain maximum freedom for the individual. When one has said this he must also say, immediately, that if this concept requires dogmatic teaching (i.e., if its value does not become self-evident through life and education), or if it does not provide a sufficient basis for community, then democracy has itself been tried and found wanting, and we had better get about the job of seeking an alternative.

To propose openness as the only valid approach to value study is not to imply neutrality as the outcome. Indeed the objective is the very reverse of neutrality. It is *commitment*—wherever this is possible in terms of the evidence and the assessment. Where it is not, we must settle for preferences or "leanings," or for genuinely suspended judgments, as the evaluation process dictates.

The teaching method, of course, is the method of inquiry. The need for mature, liberal-minded teachers is especially indicated. So, also, is the need for broad study resources—print, radio, television, and first-hand peer group and adult inputs—designed not only to provide infor-

mation as such but to make visible our biases, and to further the total evaluation process.

Most of the foregoing observations have reference to value education at any age or organization level. The process will, inevitably, become more sophisticated and "adult" in post-secondary institutions, colleges and universities, where optimally it will constitute a major emphasis in all courses and programs, and indeed a central one in philosophy courses addressed to value study as such. But for college and university students in general its greatest implementation may well be extracurricular—in bull sessions, in student meetings both formal and informal, in campus clubs, associations, demonstrations, confrontations, or whatever.

The very nature of value education, of course, requires that it be truly lifelong, and in scope as wide as life. It should not, therefore, be thought of as "institutional." Educational institutions, however, have unique resources for the study of values. They should make them available, on a continuing basis, to the broadest possible segments of our population.

RECURRENT EDUCATIONAL RESPONSES

The range of responses indicated for all the forecast areas discussed above is understandably broad—from finance, on the one hand, to curriculum and teaching on the other. Those that most frequently or forcibly recur are summarized below. This is not to suggest that they are more important, necessarily, than others. But they do arise from the forecasts, and insofar as this study is concerned may be taken as worthy of special attention now and in the future.

Governance and Control

Although they are social institutions variously under the jurisdiction of government departments, public schools and universities must never be regarded as "creatures" of government, nor of competing institutions within the establishment (business, labour, churches). If they are to educate, they must deal in information and ideas rather than in sponsorships. And if they are to survive they must become increasingly responsive to the expressed needs and wishes of their clientele.

This means students, not just parents and taxpayers. It also means disadvantaged groups, not just those favoured by birth and socioeconomic circumstances.

Organization and Integration

There is need for greater integration of the services and resources required by students. This might be achieved by the development of closer links between educational institutions and other agencies, or by the centralized administration of services such as education, health, recreation, day care of children, etc.

There is need also for the integration of students themselves. While "desegregation" is perhaps too strong a term, we must rethink the implications of some of our traditional homogenities—whether in terms of age, sex, "intelligence," socioeconomic status, or ethnic origins—and where possible work toward their intermingling in educational environments. Only so can the school make its maximum contribution to the improvement of community.

Teachers and Teaching

The complex conditions of our emerging society make it more than ever important that teachers be highly selected. The development of inquiring minds itself demands inquiring minds. In addition to being intellectually and academically competent, teachers must be kindly and humane, tolerant, emotionally mature, sensitive to individual and group needs and problems. These qualities, obviously, are of crucial importance in the carrying out of responsibilities for the future of our students in the improvement of mental health, human relations, and the making of value judgments.

In our concern for the quality of professional teachers we must not forget the importance of educational opportunity for others, notably parents, who by virtue of their relations with children are intimately involved in the teaching process.

Delivery and Resources

We must exploit our opportunities—some of which, in availability or concept, are dramatically new. They have to do with urban concentration and organization. They have to do with technologies. And they have to do with the very concept of schools and educational institutions themselves—not just as places for teachers and classrooms and books, but as centres for the administration and articulation of all those services and resources (people, organizations, artifacts, collections, displays, the physical environment) available throughout the community.

Scope and Timing

We can no longer afford to delay the implementation of programs in lifelong education. Changes in family life patterns have already placed many children in the position of requiring professional care and understanding in what are now, in Alberta, "pre-school" years. Urban concentration has eased our delivery problems. An impending decrease in the numbers of the 0-25 age group will make it possible to reallocate some of the costs and resources previously required by this group to early childhood education, and to continuing education. At the same time larger numbers of older people will be with us.

But these developments are in the nature of occasions and facilitations, not reasons. The real urgencies are educational. We know that the early years are in many ways the most creative and intellectually productive. We know that adolescents and young people want, and often need, to move in and out of schools and colleges more flexibly than we have allowed them to do. We know that many older people crave more and more opportunities for continuing education. If they are to achieve maximum satisfactions as individuals and contribute maximally to life in our province, we must extend the time and scope of our educational arrangements.

Educational Purposes

These are both individual and social. (Indeed, the theme of responses under this head might be termed "the individual in society.") The highest kind of individualism is that which returns its benefits to a supportive society.

Public education should contribute to individual self-actualization in a variety of ways: by maintaining a healthy physical and emotional environment, by providing broad and stimulating intellectual resources, by assisting in the exploration of vocational and leisure activities and goals, and especially by promoting the clarification of the student's more intimate personal goals and values through processes of open enquiry. The

term "humanization" is appropriate to these individualistic activities, and to their inevitable merging with social activities and learning. These must be so arranged as to promote sensitivity to the needs and aspirations of other individuals and groups (those differing in opportunity, ethnic backgrounds, life styles and value orientations) and to our common needs and aspirations. They must also relate to the more formal processes whereby members of a community live and govern themselves.

The resolution of differences and the clarification of values having to do with relationships between individuals and groups remains one of our greatest problems, and constitutes one of the greatest continuing challenges to public education.

"FUTURE" STUDIES

The "future of futures," i.e., the kinds, processes and emphases of studies best calculated to serve the needs of education and of other social enterprises, is much with us at the present time.

The rationale for a "futures" orientation in educational planning has been presented in the introductory section of this report. The success or failure of the attendant process—deriving educational clues, normatively, from alternative futures—will have become to some degree apparent in the following sections.

Whatever the validity of this process, it now seems clear that no planning worthy of the name can be achieved without conscious and deliberate reference to futures. Certainly much of our educational as well as our general planning to date has been ineffective—or worse, self defeating—because both its orientation and its allegiances lay in the past rather than in the future. Witness the classic case of Polonius, "learned in retrospect, ignorant in foresight." And, if allegory is needed, witness the fabled troubles of the Juju bird, who always flew backward because he was more interested in where he had been than in where he was going.

To juxtapose ideas of the past and of the future as **conflicting** is of course stupid and unrealistic—simply because they are parts of the same continuum, and subject to all the causal and other interrelationships that a variety of great thinkers have noted for them. But there is a crucial difference between the disposition that hankers for the past, and that which looks toward the future. There is also a difference between that which looks to the future primarily in terms of where its antecedents may take it, and that which looks to the future in terms of its prospects for genuinely improving on the past. Of these future orientations the former has to do with **probabilities**, the latter with **possibilities.** Our strategies for dealing with the former have mostly to do with adaptations and interventions; with the latter, creativities and promotions.

The emphasis on probabilities seems recently to have captured most of our attention. It is important. But we have given all too little play to our idealist imaginations. We now need, as Alvin Toffler has urged, to deal more in Utopias, "a multiplicity of visions, dreams and prophecies—images for potential tomorrows." Only so can our planning become, in the most exciting and rewarding sense of the term, "anticipatory." Only so can institutions of public education make their maximum contribution to life in the Twenty-first Century. Only so, perhaps, can they even survive.